Product datasheet

Specifications



photoelectric sensor - diffuse - Sn 9 mm - NO or NC - M12 connector

XURK1KSMM12

Main

Range of product	Telemecanique Photoelectric sensors XU
Series name	Application packaging
Electronic sensor type	Photo-electric sensor
Sensor name	XUR
Sensor design	Compact
Detection system	Diffuse
Emission	Red or green
[Sn] nominal sensing distance	18 mm spot 2 x 7 mm need lens XURZ01 7 mm spot 1 x 4 mm need lens XURZ02 9 mm spot 1.5 x 5 mm without lens
Material	Metal
Switching frequency	<= 10 kHz
Type of output signal	Discrete Analogue
Supply circuit type	DC
Wiring technique	3-wire
Discrete output type	PNP or NPN
Discrete output function	1 NO or 1 NC programmable
Analogue output range	0...5.5 V, DC
Electrical connection	1 male connector M12 adjustable 3 positions, 4 pins
Product specific application	Colour mark
Sale per indivisible quantity	1

Complementary

Enclosure material	Zinc alloy
Lens material	Glass
Minimum width of mark detected	0.5 mm
Maximum inclination of reader	20 °
Maximum passing speed of object	10 m/s, minimum detected mark width: 1 mm
Output type	Solid state

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Output function governance	Light or dark programmable
Add on output	With analogue output
Status LED	Output state: 1 LED (red)
[Us] rated supply voltage	12...24 V DC with reverse polarity protection
Supply voltage limits	DC
Switching capacity in mA	<= 200 mA (overload and short-circuit protection)
Maximum voltage drop	<1 V (closed state), NPN <2 V (closed state), PNP
Current consumption	<= 80 mA no-load
Time delay range	20 ms off-delay activation/deactivation by internal switch delay
Maximum delay first up	100 ms
Maximum delay response	0.05 ms
Maximum delay recovery	0.05 ms
Setting-up	Sensitivity adjustment with teach mode
Depth	58 mm
Height	82 mm
Width	31 mm
Net weight	0.55 kg

Environment

Product certifications	CE
Ambient air temperature for operation	-10…55 °C
Ambient air temperature for storage	-20…70 °C
Vibration resistance	7 gn, amplitude = +/- 0.6 mm (f = 10…55 Hz) conforming to IEC 60068-2-6
Shock resistance	30 gn (duration = 11 ms) conforming to IEC 60068-2-27
IP degree of protection	IP67 conforming to IEC 60529

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	328.0 g
Package 1 Height	5 cm
Package 1 width	8.5 cm
Package 1 Length	13.5 cm
Unit Type of Package 2	S02
Number of Units in Package 2	21
Package 2 Weight	7.37 kg
Package 2 Height	15 cm
Package 2 width	30 cm
Package 2 Length	40 cm

Offer Sustainability

REACh Regulation	REACh Declaration

REACh free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	Yes

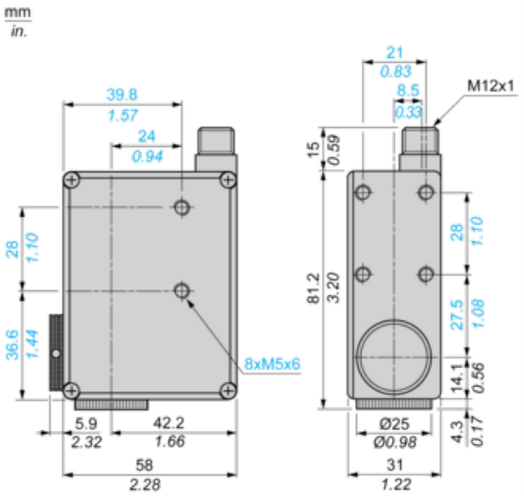
Contractual warranty

Warranty	18 months

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Dimensions Drawings

Dimensions

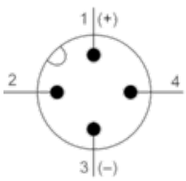


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Connections and Schema

Wiring Schemes

Connector Scheme



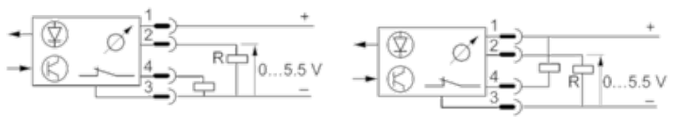
1/Brown : 10...30 VDC

2/White : Adjustment input

3/Blue : 0 V

4/Black : Output

PNP or NPN Programmable



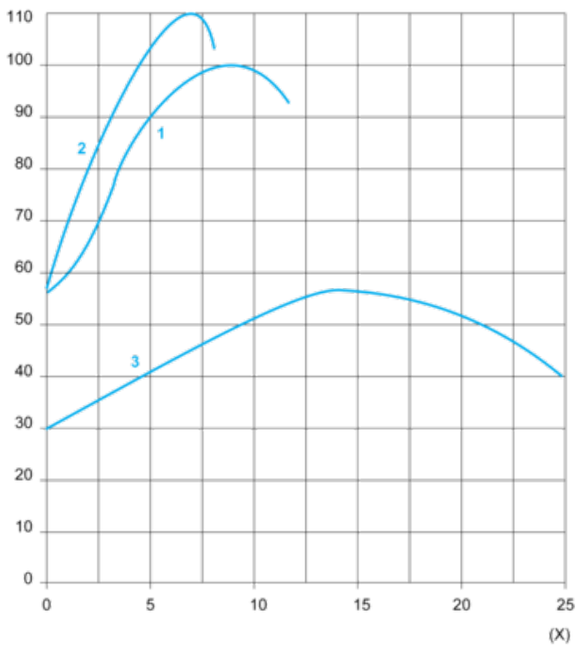
R = 2.2 kΩ

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Performance Curves

Curves

Detection Curve



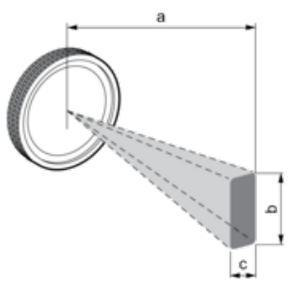
(x) Distance (mm)

1 : XURK●●●●●●●●

2 : With XURZ01

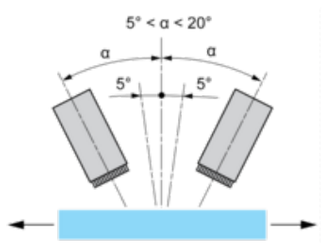
3 : With XURZ02

Detection Zone and Spot Size (mm)



	a	b	c
	9	9	1.5
With XURZ01	18	7	2
With XURZ02	7	4	1

Vertical Inclination



An angle of 5 to 10° from vertical is recommended for reflective or transparent surfaces Maximum vertical inclination: 20°